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| 10/756,918 | 01/14/2004 | Yen-Fu Chen | AUS920030936US1 | 3762 |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/756,918

Applicant(s)

CHEN ET AL.

Examiner

Amara Abdi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :03/06/2007
02/07/2007.

DETAILED ACTION

1. Acknowledge of the amendment received on: 03/14/2007
2. Applicant's arguments with respect to claim 16,19-20 have been considered but are moot in view of the new ground(s) of rejection.
3. Applicant's arguments filed for claim 1 have been fully considered but they are not persuasive. (See the Examiner response for claim 1)

Response to Arguments

Applicant's argument- "The Examiner failed to state a prima face obviousness rejection because neither Ito nor Bryborn teach or suggest all features of claim1. The Examiner admits that Ito does not teach the claimed feature of, "transmitting the stroke parameter to a server, and receiving a candidate character from the server, wherein the candidate character is based on the stroke parameter."

Examiner's response- in response to applicant's argument that neither Ito et al. nor Bryborn teach or suggest all the feature of the claim 1.

Bryborn et al. disclose clearly that the server comprises a transceiver (paragraph [0047], line 19-25), which means clearly that the server may transmit and receive the information, the information could be stroke, or candidate character, or can includes any other information in general.

Furthermore, The primary reference (Ito et al.) teaches the detection of the stroke candidate (see the Abstract).

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The purpose of the secondary reference is that the data or the information, which can be a candidate character, or stroke can be received from the server or transmitted to the server, since the server comprises a transceiver.

For the obviousness, see the rejection under 35 USC § 103.

Claim Objections

4. Claims 9-15 are objected to because of the following informalities:

(1) Claim 9, line 7, The examiner suggests deleting “an” between “one” and “attribute”; on line 5, The examiner suggest inserting “based on” before the first instruction, or deleting the “first instruction”.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 9-15 are rejected under U.S.C. 101 because the claimed invention is directed to non- statutory subject matter.

In each of claims 9,10,11,12,13,14,and 15, a “computer program product in a recordable type medium” is being recited; however, “computer program product in a recordable type medium” is interpreted as a computer program, which would reasonably be interpreted by one of ordinary skill in the art as software, pre se. This subject matter

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is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture, or a composition of matter. Software is a function descriptive material and function descriptive material is non-statutory subject matter.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. Claims 9-11, and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al. (US 6,694,056).

(1) Regarding claim 9:

Ito et al. disclose a computer-readable storage medium programs that have a computer execute the functions for each for performing a handwriting recognition (column 26, line 62-64) comprising:

First instruction for displaying a collection area in a computer interface (column 12, line 38-40; column 8, line 8-10; and column 9, line 1-3), (the examiner interpreted that the stroke information includes areas)

Second instruction adapted to determine a start point and an end point of a stroke input into the collection area (column 2, line 23-24),

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Third instruction, responsive to determining the start point and the end point, for calculating a stroke parameter set describing at least one attribute of the stroke (column 2, line 23-24), (the examiner interpreted the attribute as the stroke start event or the stroke end event)

A reference character dictionary including a plurality of record defining a plurality of respective reference characters (column 2, line 3-6; and column 8, line 8-10); and

Fourth instructions, responsive to a comparison of the stroke parameter set with the plurality of records, for identifying at least one of the plurality of respective reference characters as a candidate character (column 2, line 12-14).

(2) Regarding claim 10:

Ito et al. disclose the computer program product, where the computer interface includes a candidate display for displaying the candidate character identified by the fourth instructions (column 7, line 51-53), (the examiner interpreted that display screen is made up for displaying recognized characters, which means candidate characters).

(3) Regarding claim 11:

Ito et al. disclose the computer program product, where the candidate character displayed in the candidate display (column 7, line 51-53) is selected by the user (column 8, line 60-61), the first instructions communicating a selection of the candidate character to the fourth instructions (column 13, 48-50).

(4) Regarding claim 14:

Ito et al. disclose the computer program product, where the first instruction, responsive to change trajectory of the stroke input into the collection area of at least a

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trajectory threshold (column 14, line 27), determine a partition point (column 8, line 30-34), and wherein the stroke parameter set comprises a first stroke parameter set calculated from the start point (column 8, line 37) and the partition point (column 8, line 30-34), and a second stroke parameter set calculated (column 21, line 4-5) from the partition point (column 8, line 30-34) and the end point (column 8, line 37), (the examiner interpreted the partition point as the area information which is divided in horizontally and vertically to provides certain number of divided areas).

(5) Regarding claim 15:

Ito et al. disclose the computer program product, where identification of at least one candidate character is made by comparing the first stroke parameter set and the second stroke parameter set with the plurality of records (column 3, line 59-63), (the examiner interpreted that the comparing of the first parameter with the plurality of records is the same concept as comparing the second stroke with the plurality of records).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1,3-4,6-8,16-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. in view of Bryborn et al. (PGPUB 2003/0107558).

One skilled in the art would have clearly recognized that some parameters include the relative length of the stroke (column 2, line 12) from pen down to the first features of interest, such as a sharp angle change (column 2, line 13), and the centers which is defined as the center of the distance between the two strokes (column 6, line 41-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Ilan et al., where the stroke parameter includes a stroke length, stroke angle and stroke center, in the system of Ito et al., because such feature can be used in the system for recognizing handwritten patterns, such as letters, numbers, and signatures. For example; the difference between U and V is the angle of the letter (column 3, line 61-62), the same for Y and W, Y has one sharp angle change, where W has three sharp angle changes (column 5, line 56-59).

(2) Regarding claim 18:

Ito et al. and Bryborn et al. discloses all the subject matter as described in claim 16 above.

However, Ito et al. and Bryborn et al. do not disclose the data processing system, where the first stroke parameter set includes a length parameter, an angle parameter, and a center parameter as recited in claim 18.

Ilan et al. teaches handwritten pattern recognition processing system where the stroke parameter has a length (column 1, line 67), an angle (column 3, line 62-63), and the center (column 6, line 42-43).

One skilled in the art would have clearly recognized that some parameters include the relative length of the stroke (column 2, line 12) from pen down to the first

(1) Regarding claim 1:

Ito et al. disclose a method for performing handwritten character recognition (Figure 2), the method comprising the computer (column 1, line 20) implemented steps of:

Responsive to user input (105 in Figure 2) to a pointing device (204 in Figure 2) entered through a computer interface (201 in figure 2), (column 7, line 53-55), identifying a stroke start event and a stroke end event (column 2, line 23-24)

Deriving a stroke parameter from the stroke start event and the stroke end event (Column 2, line 26-27), (the examiner interpreted deriving a stroke parameter as obtaining stroke information).

Furthermore, Ito et al. disclose the method where the candidate character is based on the stroke parameter (see the Abstract).

However, Ito et al. does not disclose the transmitting of the stroke parameter to a server, and receiving a candidate character from the server as recited in claim 1.

Bryborn et al. teaches an electronic pen and method for recording of handwritten information, where the server comprises a transceiver (paragraph [0047], line 21; and paragraph [0058], line 2), (the examiner interpreted that since the server has a transceiver, that means it transmits and receives the information at the same time).

One skilled in the art would have clearly recognized the transmitting of the stroke parameter to the server, and receiving the candidate character from the server (paragraph [0047], line 19-25), (the server comprises a transceiver, which means it transmits and receives the information at the same time). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the server of

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the system of Bryborn et al., in handwritten character recognition system of Ito et al., because in such feature it is much easier to reprogram a server for interpretation of certain properties than to reprogram a large number of pens (paragraph [0008], line 5-8), because when the definition of different selection fields have been programmed into a pen, it is difficult to increase the number of properties because the pen's memory is limited (paragraph [0007], line 4-6).

(2) Regarding claim 3:

Ito et al. further discloses the method of handwritten character recognition system (column 1, line 20), where the step of identifying includes:

determining a first coordinate of pointing device icon (column 7, line 55), (the pointing device is interpreted as stylus, and the examiner interpreted that the coordinate input unit comprises a first coordinate) upon identifying the stroke start event (column 8, line 28), and determining a second coordinate of the pointing device icon (column 7, line 55), (the pointing device is interpreted as stylus, and the examiner interpreted that the coordinate input unit comprises a second coordinate) upon identifying the stroke end event (column 8, line 28).

(3) Regarding claim 4:

Ito et al. further discloses the method, where the deriving step includes:
Calculating a plurality of stroke parameters (column 2, line 32) from the stroke start event and the stroke end event (column 2, line 23-24)

(4) Regarding claims 6 and 7:

Ito et al. discloses a system performing handwritten recognition comprising:

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Receiving a match confirmation input indicating the candidate character corresponds to a character being input to the computer (see the Abstract) and (column 3, line 24-27).

However, Ito et al. does not disclose:

- 1) the downloading of a web page from the server as recited in claim 6,
- 2) the communication of the match confirmation input to the server as recited in claim 7.

Bryborn et al. teaches a system of recognition of handwritten information, where the information (web page) is downloaded from the server (paragraph [0047], line 9), (the examiner interpreted that downloading of the web page from the server is done via the wireless communication), and the communication of the match information input to a server (paragraph [0017], line 1-3).

One skilled in the art would have clearly recognized that the server comprises a transceiver for wireless communication with pen via the link and WAN interface (for example network) to be connected to wide area network (paragraph [0047], line 21-24), where one possible application, is one in which the input via the pen movement (pointing device) added with an email message (for example web page downloaded from the server via a network or wireless) (paragraph [0047], line 13-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the system of Bryborn et al. which comprises a server a network or wireless in the system of Ito et al. because such feature will allowed to download the information or web page from the server into a central computer via a network or wireless and different

person in different location may have the access to the information via the internet for example.

(5) Regarding claim 8:

Ito et al. disclose all the subject matter as described in claims 1,6 and 7 above.

However, Ito et al. does not disclose the method where responsive to communicating the match confirmation input to the server, and receiving the candidate character from the server as recited in claim 8.

Bryborn et al. teaches an electronic pen and method for recording of handwritten information, where communicating the match information to the server, and receiving the candidate character from the server (paragraph [0047], line 20-22; and paragraph [0058], line1-5), (the examiner interpreted that the transceiver communicates the match information to the server, and receiving the candidate character from the server).

One skilled in the art would have clearly recognized that the server comprises a transceiver where the match information is communicated to the server, and receiving the candidate character from the server (paragraph [0047], line 19-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the server of the system of Bryborn et al., in handwritten character recognition system of Ito et al., because in such feature it is much easier to reprogram a server for interpretation of certain properties than to reprogram a large number of pens (paragraph [0008], line 5-8), because when the definition of different selection fields have been programmed into a pen, it is difficult to increase the number of properties because the pen's memory is limited (paragraph [0007], line 4-6).

(6) Regarding claim 16:

Ito et al. disclose a data processing system (fig 1 and 2) comprising:

pointing device (204 in figure 2; column 12, line 13),

a display (203 in figure 2; column 12, line 6), and

memory which is included in the computer device as storage medium (column 12, line 7); and a processing unit (109 in figure 1) (column 11, line 64) and (column 12, line 4), (the examiner interpreted that the word detecting unit in figure 1 has the same function as the processing unit), responsive to execution of the set of instructions, for providing a computer interface that identifies a start point and an end point handwritten character stroke (column 19, line 47-48) input to the pointing device (204 in figure 2), a first stroke parameter set calculated by the processing unit responsive to identification of the start point and the end point.

Furthermore, Ito et al. disclose the detection of the **stroke candidate** (see the abstract).

However, Ito et al. does not disclose the server, responsive to the calculation of the first parameter set, for receiving the first parameter set from the processing unit, and transmitting a candidate character to the processing unit wherein the candidate character is based on the first parameter set as recited in amended claim 16.

Bryborn et al. teaches an electronic pen and method for recording of handwritten information, where the server responsive to the calculation of the first parameter set (paragraph [0015], line 6-8), (the first parameter set is interpreted as set of digital pen), for receiving the first parameter set from the processing unit, and transmitting a candidate character to the processing unit wherein the candidate character is based on

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the first parameter set (paragraph [0047], line 19-25; and paragraph [0058], line 1-5), (the examiner interpreted that as since the server comprises the transceiver, that means it has the processing of receiving the first parameter set from the processing unit, and transmitting a candidate character to the processing unit).

One skilled in the art would have clearly recognized that the method of handwritten character recognition comprises a combined transmitter and receiver (transceiver) (18 in figure 4) for transfer of information (the stroke parameter or the candidate character) to or from a server (paragraph [0058], line 1-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the server of the system of Bryborn et al., in handwritten character recognition system of Ito et al., because in such feature it is much easier to reprogram a server for interpretation of certain properties than to reprogram a large number of pens (paragraph [0008], line 5-8), because when the definition of different selection fields have been programmed into a pen, it is difficult to increase the number of properties because the pen's memory is limited (paragraph [0007], line 4-6).

(7) Regarding claim 17:

Ito et al. discloses all the subject matter above in claim 16.

However, Ito et al. does not disclose that the system comprising a network adapter for connecting the data processing system to a network computer as recited in claim 17.

Bryborn et al. teaches a data processing system as shown in figure 1, comprising a WAN interface (network adapter) for connecting the data processing system to the computer (paragraph [0047], line 22).

One skilled in the art would have clearly recognized that the information input via the pen or stylus is enclosed with an email message, which is transmitted via WAN, for example the internet to the computer (paragraph [0047], line 16-18). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to add the system of Bryborn et al. which comprises the network adapter in the data processing system of Ito et al. because such feature may be adapted for short-range radio communication in accordance with the Bluetooth standard at 2.4 GHZ on the ISM (industrial, scientific and medical) frequency band. It may be adapted also for infrared communication such as IrDA (Infrared data association), or for cable-based communication (such as USB or RS232) (paragraph [0058], line 6-12).

(8) Regarding claim 19:

Ito et al. further discloses the data processing system where the processing unit (109 in Figure 1; column 12, line 4) responsive in change in trajectory of the pointing device (204 in figure 2) of at least a trajectory threshold (column 14, line 27), calculate a second stroke parameter set (column 21, line 4-5).

(9) Regarding claim 20:

Ito et al. further discloses the data processing system (Figure 1 and 2) where the computer interface (column 1, line 20) includes a candidate display (203 in figure 2) for displaying a candidate character identified by comparing (see the Abstract) and (column

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12, line 16-18) the first stroke parameter set with a reference parameter set of reference character dictionary (column 12, line 16-18).

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. and Bryborn et al. (PGPUB 2003/0107558) as applied in claim 1 above, and further in view of Kannan et al. (US 5,329,625).

Ito et al. discloses the stroke start event and stroke end event (column 2, line 23-24)

However, Ito et al. does not disclose that the stroke start event is a depression of pointing device button, and the stroke end event is a release of the pointing device button as recited in claim 2.

Kannan et al. teaches a system which comprises pen or stylus used as the primary input device (pointing device)(column 1, line 43-45) which includes a movable tip that closes the switch (pointing device button)(column 2, line 65-67), the stylus generates a magnetic field that is picked up by digitizer, so the digitizer can distinguish between "proximity" coordinate (switch is open) (release of the pointing point button) and "pen down" coordinate (switch is closed) (depression of a pointing device button) (column 3, line 1-7).

One skilled in the art would have clearly recognized that a pen or stylus (pointing device) form the primary input/output means for entering information into and getting out of the computer (column 2, line 54-57), and the stylus comprises a movable tip which is working as the follow: depression of movable tip (switch closed) and a release of

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movable tip (switch open) (column 3, line 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the system of Kannan et al., where the stylus (pointing device) comprises depression and release of the moving tip, in the system of Ito et al., which comprises a stroke start event and a stroke end event, because such feature requires a high precision digitizer and the use of the moving tip (depression and release of pointing device) will make the handwriting recognition faster while permitting digitization to be done rapidly and in an efficient manner (column 1, line 57-59).

12. Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. and Bryborn et al. (PGPUB 2003/0107558) as applied in claims 1 and 16 above, and further in view of Ilan et al. (US 6,023,529)

(1) Regarding claim 5:

Ito et al. discloses the method for performing handwritten recognition as described in claims 1 and 9 above.

However, Ito et al. does not disclose a method where calculating at least one of stroke length, stroke angle, and stroke center for the stroke parameter as recited in claims 5.

Ilan et al. teaches handwritten pattern recognition where the stroke parameter has a length (column 1, line 67), an angle (column 3, line 62-63), and the center (column 6, line 42-43).

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features of interest, such as a sharp angle change (column 2, line 13), and the centers which is defined as the center of the distance between the two strokes (column 6, line 41-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Ilan et al. where the stroke parameter includes a stroke length, stroke angle and stroke center in the system of Ito et al. because such feature can be used in the system for recognizing handwritten patterns, such as letters, numbers, and signatures, for example, the difference between U and V is the angle of the letter (column 3, line 61-62), the same for Y and W, Y has one sharp angle change, where W has three sharp angle changes (column 5, line 56-59).

13. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. in view of Ilan et al. (US 6,023,529)

(1) Regarding claim 12:

Ito et al. discloses a computer product program (column 26, line 62-64) for performing handwritten recognition as described in claim 9 above.

However, Ito et al. does not disclose a method where calculating at least one of stroke length, stroke angle, and stroke center for the stroke parameter as recited in claim 12.

Ilan et al. teaches handwritten pattern recognition where the stroke parameter has a length (column 1, line 67), an angle (column 3, line 62-63), and the center (column 6, line 42-43).

One skilled in the art would have clearly recognized that some parameters include the relative length of the stroke (column 2, line 12) from pen down to the first features of interest, such as a sharp angle change (column 2, line 13), and the centers which is defined as the center of the distance between the two strokes (column 6, line 41-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Ilan et al., where the stroke parameter includes a stroke length, stroke angle and stroke center, in the system of Ito et al., because such feature can be used in the system for recognizing handwritten patterns, such as letters, numbers, and signatures. For example; the difference between U and V is the angle of the letter (column 3, line 61-62), the same for Y and W, Y has one sharp angle change, where W has three sharp angle changes (column 5, line 56-59).

(2) Regarding claim 13:

Ito et al. discloses a computer product program (column 26, line 62-64) for performing handwritten recognition as described in claim 9 above.

However, Ito et al. does not disclose that the reference parameter set have a reference length parameter, reference angle parameter, and reference center parameter as recited in claim 13.

Ilan et al. teaches handwritten pattern recognition where the stroke parameter has a length (column 1, line 67), an angle (column 3, line 62-63), and the center (column 6, line 42-43).

One skilled in the art would have clearly recognized that some parameters include the relative length of the stroke (column 2, line 12) from pen down to the first

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features of interest, such as a sharp angle change (column 2, line 13), and the centers which is defined as the center of the distance between the two strokes (column 6, line 41-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Ilan et al., where the stroke parameter includes a stroke length, stroke angle and stroke center, in the system of Ito et al., because such feature can be used in the system for recognizing handwritten patterns, such as letters, numbers, and signatures. For example; the difference between U and V is the angle of the letter (column 3, line 61-62), the same for Y and W, Y has one sharp angle change, where W has three sharp angle changes (column 5, line 56-59).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawamura et al. (US 7,013,046) disclose apparatus and method for handwriting recognition.

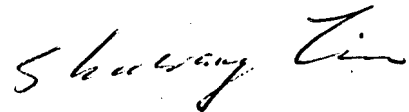
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571) 270-1670. The examiner can normally be reached on Monday through Friday 7:30 Am to 5:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amara Abdi
04/27/2007



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SUPERVISORY PATENT EXAMINER